Though misuse of illegal drugs differs from that of alcohol by type of client group, extent of criminal involvement and the HIV question, there are many commonalities in terms of addictive behaviour, dependence, substance related harm and approaches to prevention, harm reduction and therapy as well as negative medical attitudes. Michael Gossop reviewed treatment and outcome at the February 1991 symposium and his paper is published in this issue of the Journal.

The work of Ilana Glass[15], who also spoke at the symposium, indicates that medical training in the management of drug misusers is also in a state of disarray with limited teaching time in an already overcrowded curriculum, negative attitudes often based on inaccurate perceptions of outcome, lack of therapeutic commitment and deficient basic patient management skills; yet another challenge facing medical education.

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Philosophy of medicine: alternative or scientific

It seems that 'alternative', 'complementary', 'unconventional' or 'fringe' medicine is currently enjoying something of a boom - being a regular feature of the media output, and having penetrated into every pharmacist's shop. Consultations with 'irregular' practitioners are now commonplace among the trendy middle-classes and seem to be spreading. And yet at the same time 'scientific' medicine goes from strength to strength with enormous public interest in the wonders of modern therapy. How can we explain this paradox, and what is the relationship between alternative and scientific medicine?

The best perspective can be derived from history. It was around the middle of the 19th century that the practice of medicine evolved into its present disease-based system. Each disease category was (ideally) based upon the identification of an underlying pathological lesion, by the art of eliciting physical signs, and with the ultimate arbiter of a postmortem examination[1].

The philosophy of pathological medicine went through several stages bringing us up to the present day. Firstly, there developed an awareness of natural remission. It was realized that many illnesses were self-limiting and the body had powers to cure itself without medical intervention - this led to the era of 'therapeutic nihilism'. Secondly, there occurred the development of objectively effective treatments: initially the invention of general anaesthesia and aseptic surgery, and during the 20th century a vast armamentarium of therapeutic drugs. Only much more recently have we reached the third stage: a realization of the vital role of the placebo. The placebo effect was found to be, overall, the major element in therapy, and virtually the only cause of effective therapy in the pre-modern era[2]. It is difficult to overestimate the importance of this shattering insight. From now onwards, doctors can no longer assume that a specific effect is due to a specific treatment - it might equally be a non-specific result of the therapeutic relationship.

Objective evidence for effective therapy is of two kinds. The first is the 'miracle cure', when effectiveness is not in doubt among rational and informed parties. These are treatments which improve a predictably bad prognosis: a previously fatal disease is no longer fatal, a drug has a quick and dependably curative effect in all patients, surgery restores anatomical normality etc. The second kind of objective evidence is necessary when prognosis is unpredictable, and a group of patients must be studied under scientific conditions. The upshot is the double-blind, randomized controlled trial, which is a technique for quantifying natural remissions and the placebo effect in order to differentiate them from specific treatment.

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It works by 'cancelling-out' non-specific responses and the idiosyncracies of individual patients (and their doctors) to leave as a residue the objective effect, if any, of the intervention under test[3].

With the double-blind, randomized controlled trial medicine at last had a tool whereby its knowledge base could be expanded in a rigorous and objective manner, to build a consensus of good practice which was derived from science, rather than anecdote and assertion[4]. We have entered the era of 'post-critical' medicine, and there is no going back: things will never be the same again. However, just at a time when consensus among the medical profession is becoming stronger, consensus between the public and the doctors has begun to break down. The public, it seems, want not only the proven effectiveness of scientific medicine; but also the mysticism of fringe medicine.

Partly this is a matter of supply and demand. Before the establishment of pathological medicine there were never sufficient 'qualified' physicians, surgeons or apothecaries to satisfy the demand of the public, so these were supplemented by a multitude of irregular practitioners who filled the gap: 'the gentry' practised medicine on their tenants, educated clergymen would take an amateur interest, there were travelling 'quacks' and, of course, the famous 'old wives' did much useful work[5]. Then, and for a relatively brief period, the status, numbers and cost of the newly established medical profession matched almost exactly the quantity and quality of public demand - and irregular practice sank to its lowest ebb. At present, however, the public demand more than scientific medicine has to offer - indeed health has become the single over-riding preoccupation for many people, a major focus of consumer activity[2]. It is difficult, in this age of miracle cures, for people to accept that nothing specific can be done. A century of medical progress has left people with the idea that for every ailment there must be a cure: somehow, somewhere, if only you look hard enough or pay enough . . .

But scientific medicine is not the whole story: science is, after all, only a small segment of the pathological system, a system which inevitably extends far beyond those interventions which are verifiable by double-blind randomized controlled trial[3]. Anyway, medicine is not a science but a profession, a blend of problem-solving technology with moral practice[2]. Therefore, most of pathological medicine is rational rather than scientific: although at best it is derived by logical extension from the findings of science. But when suitable findings are not available the gaps are filled by reasoning from 'authoritative' principles and 'theoretical' pathology[1]. And in this respect, the bulk of pathological medicine is indistinguishable from alternative systems.

Alternative systems are entirely rational. They are not based-upon, and neither do they contain, any objective or scientific data; in contrast they are based-upon a few purely metaphysical principles. Thus, homeopathy is based on the metaphysical principles of simile ('like cures like') and of increased potency of a remedy with increased dilution. Acupuncture is based upon the principles of Yin and Yang, and the idea that these can be balanced by needles placed in certain 'meridians'. Precisely the same forms of argument were used to justify the ancient theory of diagnosis by humours and treatment by bleeding and purging: a system both authoritative and ancient!

Alternative therapies are anecdotal, and play-down the importance of natural remissions and the placebo effect. They make no attempt to quantify the objective value of their specific interventions. Any benefit is credited to the therapy, and any harm ascribed to the disease (although we know that even an inert placebo will cause side-effects). Fringe therapies are in fact a kind of cultural fossil, preserving a pre-scientific and pre-critical mode of reasoning about medicine. Their survival depends upon either ignorance or double-think (a deliberate bracketting-off of scepticism) - which explains why such practices can never be disproved, it being impossible to disprove a religion.

Among the alternative systems, homeopathy has recently attempted to justify itself in the light of objective evaluation. Lacking, as it does, anything comparable to the miracle cures of scientific medicine, group trials of various kinds have been performed[6-8]. None of these trials have produced any evidence to convince the sceptic. The small minority of adequate trials which demonstrate even a slight significant and positive result have been reported for conditions such as asthma, hay fever, cold symptoms, joint or muscle pain and other diseases of notoriously unpredictable and variable prognosis. In such conditions even scientific remedies are of uncertain value and publishing bias in favour of positive results will have its maximum effect[2,4].

We must conclude that, for all its imperfections, pathological medicine is far and away the most objectively valid system of therapy. It has repeatedly proved itself able to predict, to generate and to explain those objectively valuable treatments upon which its reputation depends. So, despite the fact that most of the system is every bit as unfounded as the daftest fringe therapy, it has the advantage of being logically linked with some of the greatest technical achievements of humankind. Which is why Western Medicine is our most universally exportable cultural artefact - those bits of it that work, work everywhere and for everyone.

Furthermore, any useful 'alternative' treatments can be absorbed into conventional practice - where they are explained either by using a pathological vocabulary or in terms of non-specific factors such as natural remission and the placebo effect. This is not, however, true in reverse: alternative systems cannot explain the objective effects of scientific medicine, the best they can manage is to ignore them. Of course, all the various fringe therapies are mutually exclusive in their theoretical pathologies. Each has a different explanation for the same symptom, they cannot all be true at the same time. Yet - having rejected science - there are no objective criteria to choose between them! The only consistent course of action is to accept the clear superiority of pathological medicine.

Do alternative therapies have any lessons to teach us? Yes - after all they are a measure of public demand - but we should firmly reject their specific methods of diagnosis and treatment. On the other hand they can offer something which scientific medicine finds it increasingly hard to provide: a highly effective use of the placebo[3,9,10]. The very fact that alternative practitioners are scientifically uncritical means that they have an unshakeable belief in their system which itself enhances the placebo response[2]. Furthermore they are 'holistic' in the sense of treating every patient as an individual,

often to the extent of treating every patient with an individually-tailored regimen. This is utterly unscientific - how can you know the effect of a treatment if you use it only once? - but again enhances the placebo effect. And finally they can offer the patient *time*. Doctors are in short supply, expensive and busy. Unprofessionalized, relatively untrained, unregistered and unregulated alternative practitioners are cheaper, in abundant supply, and available for relaxed consultations in pleasant surroundings. They thus meet the demands of a consumer society; although I can't help wishing that the same job was done by nurses, pharmacists, physiotherapists and other groups practising within a more scientific framework.

What should conventional medicine do about alternative medicine? Should we try and outlaw irregular practitioners, or forbid regular doctors from practising fringe therapies? These strategies were both repeatedly attempted in the 19th century when there was an overproduction of conventional doctors, who resented their slender income being further diminished by 'quacks'[5]. But legislation never succeeded in Britain (although it did in some other countries), and it has always been legal for anybody to treat any illness (except venereal disease!) so long as they do not prescribe restricted drugs or falsely claim qualifications which they do not possess. Prohibition is virtually unenforceable without public consent, the risks of a monopoly are probably greater than the benefits, and anyway doctor's salaries are not being threatened - yet!

The choice lies between expanding conventional medicine to include the unconventional; or expanding the scientific and logical integrity of pathological medicine to demarcate it firmly from the fringe: between, in other words, a relaxation of critical standards or a tightening of them. I would strongly favour the latter course of action: that while modern medicine can learn much from the practice of alternative medicine, it should guard the objective nature of its knowledge base with no concessions to mysticism or metaphysics.

If the public want something else, they are free to look elsewhere, and presumably many may do so: that is the price to be paid. Which is not to say that doctors should accept alternative medicine wholesale: far from it. We should emphasize the potential for physical harm, irrationality, ignorance, dishonesty, charlatanism, and sheer expense of unvalidated and unregulated medical practice[11] which derive from rejecting the twin disciplines of science and professionalism[3]. However, it is unlikely that such criticisms will prove more than partially effective (or even be understood) outside the medical profession, given that they are only partially effective (or understood) within it! So, alternative medicine is here to stay. At the end of the day, the primary responsibility of the medical profession is to ensure that when the public consults a registered practitioner they will get a high quality service. If people wish to step outside of the rigorous world of pathological medicine they should be free to do so; but they do so at their own risk.

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General practice in the post-Morgagni era

Reactions to the 1990 NHS Contract's requirement for an annual assessment of those aged over 75 by their general practitioner has been very informative as initial scepticism has been followed by increasing recognition of the value of the procedure. It had been alleged that a result would be to convert people into patients, and be an imposition on older people who would resent intrusion into their homes. Others argued that it would all be a waste of time since nothing new would be found, and demanded proof of effectiveness. Yet others have predicted an overload of the capacity of laboratories and outpatient departments, and the Social Services' ability to deal with unmet need. GP reports have varied markedly from significant findings in 50% of those screened to one new case of anaemia detected out of 8700 patients by a nurse who thought a patient looked pale.

It was expected that doctors, conservative by nature, would resent changes in a NHS that had long rewarded best those who did the least. Preventive measures, encouraged by item-of-service payments for cervical cytology, immunization of infants, family planning and antenatal care, had been widely performed and structured by nuclear team effort using

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